

Handwritten notes at the top of the page, including "ROUTE 156" and "MONTEREY & SAN BENITO COUNTIES".

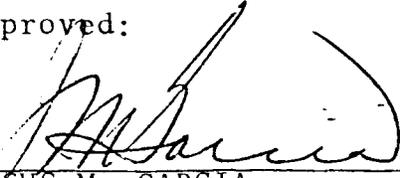
ROUTE CONCEPT REPORT

ROUTE 156
IN
MONTEREY & SAN BENITO
COUNTIES

CALTRANS DISTRICT
5

I approve this Route Concept Report as the guide toward which today's decisions and/or recommendations should be directed.

Approved:



JESUS M. GARCIA
District Director of
Transportation

Approved:

D. L. WIEMAN, Chief
Division of Transportation
Planning

Approved:

DONALD L. WATSON, Chief
Division of Highways and
Programming

Approved:

JACK KASSEL, Chief
Division of Project Development

ROUTE CONCEPT REPORT SUMMARY

ROUTE 156

MON-L0.0 TO SCL-0.7

ROUTE CONCEPT

Route 156 should be maintained or improved as indicated below. Recommended and/or existing traffic levels of service* range from LOS B to LOS C based on 2 to 4 lanes in the rural areas and 4 lanes in the urban areas. The Route Concept of Route 156, in San Benito County, may be updated, pending the possibility of merging it with Route 152 in Santa Clara County. This possibility is now being studied and a final decision will be made by the California Transportation Commission.

<u>ROUTE SEGMENT</u>	<u>P.M. TO P.M.</u>	<u>CONCEPT LOS*</u>	<u>PROPOSED IMPROVEMENT</u>	
No. 1 (MON)	L0.0 to T5.4	C-45	76' 4-lane all paved section w/ channelization	<i>per GKL 15-1-96 4-lane Expressway Divided.</i>
No. 2 (SBt)	0.0 to 9.1	B-55, C-45	4-lane expressway & 4-lane conventional w/channelization	
No. 3 (SBt)	9.1 to 13.1 (Hollister)	C-45	4-lane conventional w/channelization or 40' 2-lane bypass	
No. 4 (SBt)	13.1 to 18.4	B-50	No significant change	
No. 5 (SCL)	0.0 to 0.7	B-50	No significant change	

It should be noted that the Concept LOS may not agree with any LOS established by the local planning agencies. The Concept LOS, for the most part, is based on present traffic conditions. In some instances, this may vary depending on traffic needs and/or financial and technical conditions.

CONCEPT RATIONALE

Route 156 is designated a principal arterial from Route 1 near Castroville to Route 101 in Prunedale. From Route 101 through Hollister to its terminus with Route 152 it is designated a rural minor arterial. Route 156 primarily serves interregional traffic, although local traffic predominates in the City of Hollister. Route 156 also serves a substantial amount of recreational traffic on weekends between the Central Valley and the Monterey Peninsula. Truck traffic is also substantial, especially in the Hollister area and north to Route 152. The concept rationale is also based on a bypass of Hollister.

AREAS OF CONCERN

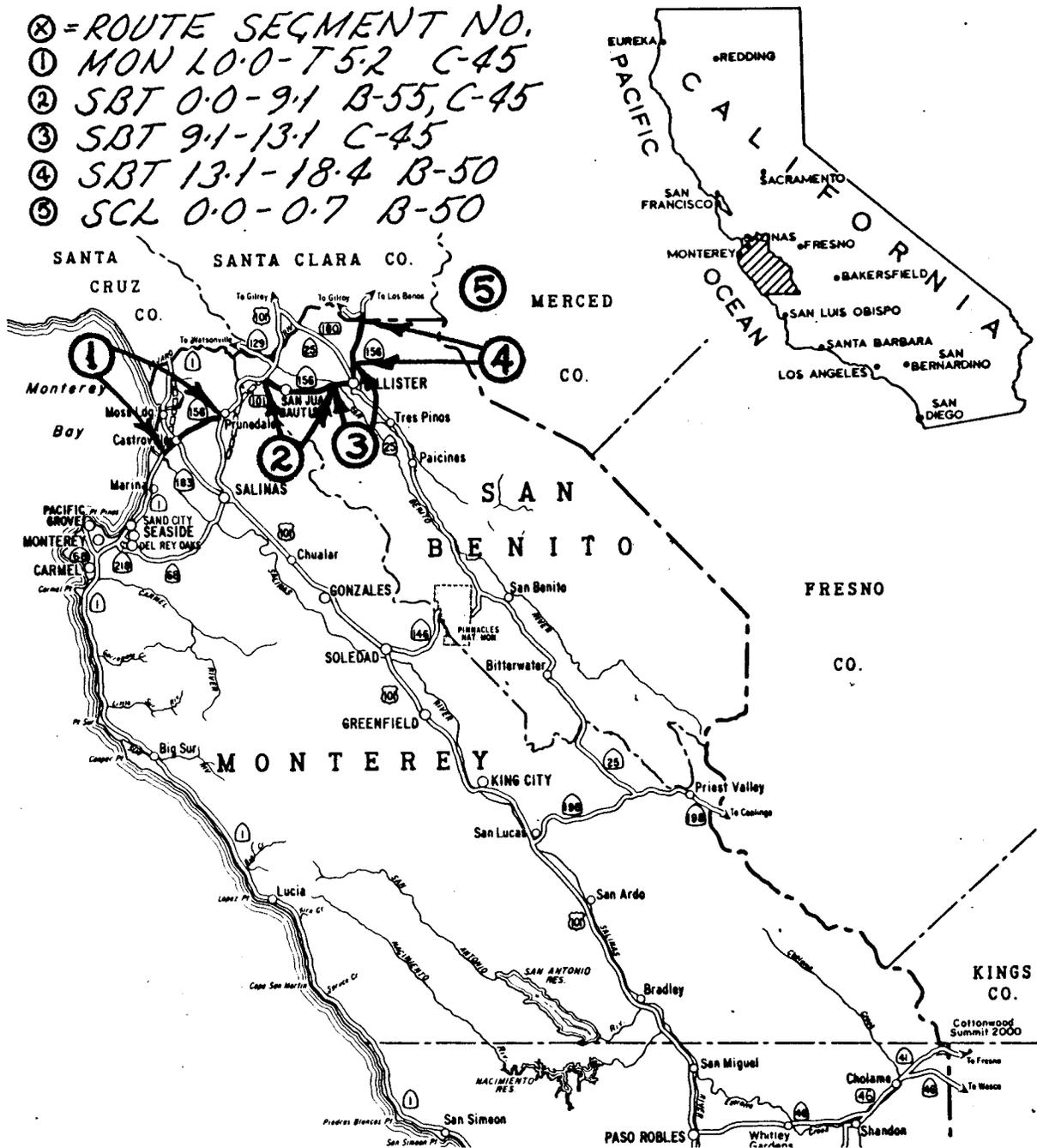
The portion of Route 156 between Castroville and Route 101 in Prunedale is now operating at LOS F during peak hours. This is due to high traffic volumes (1.33 v/c). The Route concept for this segment is LOS C-45. Future high traffic volumes between San Juan Bautista and Hollister will deteriorate the LOS in those segments from LOS C to LOS F. Future high traffic and truck volumes in Hollister will also cause an LOS F in the central business district.

IMPROVEMENTS

The purpose of this report is to establish a concept and describe general improvements where needed. Specific improvements will be addressed in a follow up document - The Route Development Plan.

* Levels of Service are defined in the Appendix of this report.

- ⊗ = ROUTE SEGMENT NO.
 ① MON 10.0-15.2 C-45
 ② SBT 0.0-9.1 B-55, C-45
 ③ SBT 9.1-13.1 C-45
 ④ SBT 13.1-18.4 B-50
 ⑤ SCL 0.0-0.7 B-50



DISTRICT 5

ROUTE 156
 ROUTE SEGMENT
 LOCATION MAP



ROUTE 156 CONCEPT REPORT
5-MON-156-PM L0.0 to T5.4
5-SBt-156-PM 0.0 to R18.4
5-SCL-156-PM 0.0 to 0.7

PREFACE

The following represents Caltrans' District 5's format for route concept reports. Route Concept Reports follow a specific outline and are supported by Route Segment Data pages. You will find that practically all existing route data is shown on the Route Segment Data pages at the appropriate locations. Specific improvements and costs are not shown as they will be discussed in the upcoming route development plans.

The Route Concept Report (RCR) is a planning document which expresses the Department's judgment on what the characteristics of the State highway should be to respond to the projected travel demand over the 20-year planning period.

The RCR contains the Department's goal for the development of each route in terms of level of service and broadly identifies the nature and extent of improvements needed to reach those goals. The RCR then provides the basis for the preparation of route development plans and the system analysis which indicates the level of service provided on the system at a given level of funding.

Route Concept Reports are prepared in the districts and represent the combined expertise of district staff. Facility dimensions (e.g., roadway widths or number of lanes on a multi-laned facility) discussed in the RCR represent an initial planning approach to scoping candidate improvement and determining estimated costs.

All information in the Route Concept Report is subject to change as conditions change and new information is obtained. Consequently, the nature and size of identified improvements may change as they move through the project development stages, with final determinations made at the time of project planning and design. If the nature and size of improvements change from that included in this report during later project development stages, this will be cause to review the Route Concept Report for this route.

The Route Concept of Route 156, in San Benito County, may be updated, pending the possibility of merging it with Route 152 in Santa Clara County. This possibility is now being studied and a final decision will be made by the California Transportation Commission.

In some cases, resurfacing, restoration and rehabilitation (3R) projects, will not adhere to the minimum concepts stated in this report. In these instances, exceptions to the minimum will be requested of the FHWA for funding purposes.

1. ROUTE DESCRIPTION WITHIN DISTRICT 4 & 5*

Route 156 in Monterey, and San Benito and Santa Clara Counties is 25.67 miles in length. The greatest portion of Route 156 is a 2-lane facility although there are 4-lane freeway and expressway segments at various locations.

*For continuity, the portion of Route 156 located in Santa Clara County (0.70 mile) is included within this route concept report.

MONTEREY COUNTY - 6.54 MILES

Route 156 in Monterey County from Route 1 to Vierra Canyon Road (0.2 mile east of Route 101) in Prunedale serves as a principal arterial between Route 101 and the Monterey-Santa Cruz coastal areas. This route transitions from a 4-lane freeway (Rte. 1 to 0.2 mile east of Rte. 183) to a 4-lane conventional highway (0.5 mile in length) to a 2-lane highway for the remaining distance (4.6 miles). Grades are flat to rolling. It is designated a Scenic Route.

SAN BENITO COUNTY - 18.43 MILES

Route 156 transitions from an expressway (Rte. 101 to 3.8 miles east) to a conventional 2-lane highway which extends into a central business district of Hollister. It then becomes a 4-lane conventional highway. Route 156 then changes to a 4-lane expressway just north of Hollister. At San Felipe Road (P.M. R14.3) it becomes a 2-lane expressway to the Santa Clara County line. Grades are flat to rolling for the entire section.

SANTA CLARA COUNTY - 0.70 MILES

Route 156 is a conventional 2-lane highway from the San Benito County line to the junction of Route 152. Grades are flat.

2. ROUTE SEGMENTATION

This route has been divided into 5 segments. The segments are shown on the Route Segment location map and detailed information is given on the Route Segment Data pages. Route segments are based on district boundaries, county boundaries, change in functional classification, significant changes in terrain, etc.

3. PURPOSE OF ROUTE

The primary purpose of Route 156 is in serving interregional traffic although local & commute traffic trips in Hollister dominate.

Route 156 is not a SHELL route (State Highway Extra Legal Load) nor it is designated an oversize truck route.

Route 156 is designated as a Federal Aid Primary Route. It is on the Freeway and Expressway System although a large portion of the route is conventional highway.

The various route functional classifications are listed on the attached Route Segment Data pages.

4. EXISTING FACILITIES

Refer to the Route Segment Data pages for current status (geometrics, traffic, accident data, etc.).

There are no scheduled improvement projects for Route 156 in the adopted 1986 STIP.

On September 18, 1975, the California Transportation Commission rescinded the adopted Route 156 between Route 183 and adopted Route 101 in Prunedale by resolution. This adopted route closely paralleled the existing route.

5. PRESENT AND FUTURE OPERATING CONDITIONS

Refer to the Route Segment Data pages for current operating conditions other than listed below.

EXISTING PARK & RIDE LOTS

Routes 156/101 separation in the community of Prunedale (Monterey County), 30 spaces, 15 used.

PUBLIC TRANSIT (DAILY)

Public Transit has no bearing or significant effect on the operational characteristics of Route 156.

RAIL SERVICE

None.

6. CONCERNS AT THE END OF THE STIP PERIOD

The concerns shown on the attached Route Segment Data pages exist now and will not be solved during the current STIP period (1986-87 through 1990-91 fiscal years).

The concerns identification criteria guidelines are based on existing operating speeds, level of service and accident rates. Where the levels of the problem identification criteria are exceeded, it is shown on the Route Segment Data pages as an asterisk next to the appropriate item.

Route Segment No. 1 (MON) - High traffic volumes between Castroville and Route 101 (1.33 v/c).

Route Segment No. 3 (SBT) - High truck volumes at the Fourth Street/San Benito Street intersection in Hollister.

7. FUTURE CONCERNS (6-20 YEAR PERIOD)

Route Segment No. 1 (MON) - continued higher traffic volumes between Castroville and Route 101 which will cause a further deterioration of the level of service (already LOS F, 1.33 v/c).

Route Segment No. 2 (SBt) - high traffic volumes between San Juan Bautista and end of segment will cause segment to operate at LOS F.

Route Segment No. 3 (SBt) - high traffic and truck volumes throughout total route segment. This will increase operational problems within the City of Hollister.

Route Segment No. 4 (SBt) - No foreseen future problems.

Route Segment No. 5 (SCL) - No foreseen future problems.

8. ROUTE CONCEPT (2005)

CONCEPT LEVELS OF SERVICE (LOS)

Refer to the Route Segment Data pages for the Concept levels of service.

The district shows an LOS C-45 for Route Segment No. 3 (Hollister). This LOS is based on a realignment that would bypass the city. The future LOS will be F without a bypass.

MINIMUM TYPICAL CROSS SECTION

The recommended minimum typical cross section is 40' based on present and future ADT's.

The route concept will include widening of the route only where operational, accident or route gap problems exist or are projected to exist. This does not preclude other decisions as more or better information becomes available.

ALIGNMENT CHANGES

If implemented, the Hollister Bypass in Route Segment No. 3 would be the only significant alignment change. In this event, the district would favor the relinquishment of those existing portions of Route 156, that were bypassed, to the local jurisdictions.

If Route 101 is constructed on new alignment north of Salinas (Prunedale Bypass) then the existing portion that acts as the break in route for Route 156 will become Route 156. This is a segment of 8.9 miles in length. This is discussed more fully in the Route 101 Concept Report.

9. ROUTE IMPROVEMENTS

All proposed route improvements are listed on the attached Route Segment Data pages.

10. ALTERNATE ROUTE CONCEPTS CONSIDERED

The proposed concept of Route 156 could be considerably altered pending the possibility that it could be combined with Route 152 between the present 152/156 intersection and Route 101.

APPENDIX

You will note that the term "Level of Service" (LOS) appears frequently within this report. Level of Service is a term used to describe the quality of operation of a highway facility. It is a qualitative measure of the effect of such factors as, speed, travel time, traffic interruptions, freedom to maneuver, driving comfort, convenience, safety and operating cost. It is based on peak traffic hours in this report. On urban street systems, the quality of flow is most frequently controlled by traffic conditions at signalized intersections. The flow characteristics at the six defined levels of service, A through F, can be described as follows:

LEVEL OF SERVICE DEFINITIONS (Uninterrupted Traffic Flow)

Level of Service A (LOS A) describes a condition of free flow, with low volumes and high speeds. Traffic density is low, with speeds controlled by driver desires, speed limits, and physical roadway conditions.

Level of Service B (LOS B) is in the zone of stable flow, with operating speeds beginning to be restricted somewhat by traffic conditions. Drivers still have reasonable freedom to select their speed and lane of operation.

Level of Service C (LOS C) is still in the zone of stable flow, but speeds and maneuverability are more closely controlled by the higher volumes. Most of the drivers are restricted in their freedom to select their own speed, change lanes, or pass.

Level of Service D (LOS D) approaches unstable flow, with tolerable operating speeds being maintained though considerably affected by changes in operating conditions. Fluctuations in volumes and temporary restrictions to flow may cause substantial drops in operating speeds.

Level of Service E (LOS E) cannot be described by speed alone, but represents operations at even lower operating speeds than in Level D, with volumes at or near the capacity of the highway. Flow is unstable, and there may be stoppages of momentary duration.

Level of Service F (LOS F) describes forced flow operation at low speeds, where volumes are below capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time because of the downstream congestion. In the extreme, both speeds and volume can drop to zero.

LEVEL OF SERVICE DEFINITIONS (Traffic Signal Controlled)

Level of Service A is unobstructed flow; no approach signal phase is fully utilized by traffic and no vehicle waits longer than one red indication.

Level of Service B is stable operation; an occasional approach signal phase is fully utilized and a substantial number are approaching full use.

Level of Service C is stable operation with intermittent loading, relatively frequently. Occasionally, drivers may have to wait through more than one signal indication, and backups may develop behind turning vehicles.

Level of Service D shows delays to approaching vehicles may be substantial during short periods during the peak period, with periodic clearance of developing queues.

Level of Service E shows unstable flow conditions with long queues over extended periods. Capacity occurs at the limit of this level.

Level of Service F shows forced flow conditions, with demand exceeding capacity; highly variable delay and long backups.

ROUTE SEGMENT DATA

DISTRICT: 5 COUNTY: MON ROUTE: 156
SEGMENT NUMBER: 1 P.M.: L0.0 to P.M.: T5.4 LENGTH: 5.4

DESCRIPTION: Jct. Rte 1 to south Jct. Rte 101 (break in route)
(subsegment P.M. R1.1 to T5.4)

FUNCTIONAL CLASSIFICATION: Principal Arterial

FEDERAL AID CLASSIFICATION: Primary

TYPE OF FACILITY: Freeway/Conventional

TYPE OF TERRAIN: Rolling

NUMBER OF TRAFFIC LANES: 2 & 4

LANE WIDTH: 11' & 12' SHOULDER WIDTH: 6" & 8'
R/W WIDTH: 150' & greater MEDIAN WIDTH: 0' & 36'

ADT (Present,1985): 19,000

ADT (Future,2005): 30,000

PEAK HOUR VOLUME (Present): 2,200

DIRECTIONAL SPLIT: 60%

HOURS DELAY, P.M. PEAK: Not Available

V/C RATIO: 1.33* LOS: F* % TRUCKS: 10%

SIGNALIZED INTERSECTIONS: 0

ACCIDENT RATE: 0.96 FAT: 0.010 F&I: 0.44

COMP. STWIDE ACC. RATE: 1.27 FAT: 0.049 F&I: 0.66

PROPOSED ROUTE CONCEPT (2005): 76' 4-lane paved section w/channelization

ROUTE CONCEPT LOS (2005): C-45

ANTICIPATED LOS (2005): C-45 with concept improvement
F-25 without improvement

ROUTE SEGMENT DATA

DISTRICT: 5 COUNTY: SBT ROUTE: 156
SEGMENT NUMBER: 2 P.M.: 0.0 to P.M.: 9.2 LENGTH: 9.2

DESCRIPTION: North Jct. Rte 101 to San Benito River
(subsegment P.M. 0.0 to 3.0)

FUNCTIONAL CLASSIFICATION: Rural Minor Arterial

FEDERAL AID CLASSIFICATION: Primary

TYPE OF FACILITY: Expressway

TYPE OF TERRAIN: Rolling

NUMBER OF TRAFFIC LANES: 2 & 4

LANE WIDTH: 12' SHOULDER WIDTH: 8'
R/W WIDTH: 150' & greater MEDIAN WIDTH: 0' & 24'

ADT (Present,1985): 10,600

ADT (Future,2005): 17,800

PEAK HOUR VOLUME (Present): 1,270

DIRECTIONAL SPLIT: 60%

HOURS DELAY, P.M. PEAK: None

V/C RATIO: 0.20 LOS: A % TRUCKS: 12%

SIGNALIZED INTERSECTIONS: 0

ACCIDENT RATE: 0.59 FAT: 0.00 F&I: 0.25

COMP. STWIDE ACC. RATE: 0.97 FAT: 0.028 F&I: 0.46

PROPOSED ROUTE CONCEPT (2005): Extend 4 lane Expressway through Alameda St.

ROUTE CONCEPT LOS (2005): B-55

ANTICIPATED LOS (2005): B-55

ROUTE SEGMENT DATA

DISTRICT: 5 COUNTY: Sbt ROUTE: 156
SEGMENT NUMBER: 2 P.M.: 0.0 to P.M.: 9.1 LENGTH: 9.1

DESCRIPTION: North Jct. Rte 101 to San Benito River
(subsegment P.M. 3.0 to 9.1)

FUNCTIONAL CLASSIFICATION: Rural Minor Arterial

FEDERAL AID CLASSIFICATION: Primary

TYPE OF FACILITY: Conventional

TYPE OF TERRAIN: Flat

NUMBER OF TRAFFIC LANES: 2

LANE WIDTH: 10' & 12' SHOULDER WIDTH: 8'

R/W WIDTH: 60' & greater MEDIAN WIDTH: 0'

ADT (Present,1985): 11,500

ADT (Future,2005): 18,000

PEAK HOUR VOLUME (Present): 1,400

DIRECTIONAL SPLIT: 60%

HOURS DELAY, P.M. PEAK: None

V/C RATIO: 0/80 LOS: D % TRUCKS: 12%

SIGNALIZED INTERSECTIONS: 0

ACCIDENT RATE: 1.06 FAT: 0.042 F&I: 0.42

COMP. STWIDE ACC. RATE: 1.08 FAT: 0.047 F&I: 0.54

PROPOSED ROUTE CONCEPT (2005): 76' 4-lane facility w/channelization

ROUTE CONCEPT LOS (2005): C-45

ANTICIPATED LOS (2005): B-50 with concept improvement
F-25 without improvement

ROUTE SEGMENT DATA

DISTRICT: 5 COUNTY: SBT ROUTE: 156
SEGMENT NUMBER: 3 P.M.: 9.1 to P.M.: 13.1 LENGTH: 4.0

DESCRIPTION: San Benito River to Fallon Rd.
(subsegment P.M. 9.1 to 10.8)

FUNCTIONAL CLASSIFICATION: Ext. of Rural Minor Arterial

FEDERAL AID CLASSIFICATION: Primary

TYPE OF FACILITY: Conventional

TYPE OF TERRAIN: Rolling

NUMBER OF TRAFFIC LANES: 2

LANE WIDTH: 10' & 14' SHOULDER WIDTH: 0' & 8'

R/W WIDTH: 60' MEDIAN WIDTH: 0'

ADT (Present,1985): 15,000

ADT (Future,2005): 27,000

PEAK HOUR VOLUME (Present): 1,550

DIRECTIONAL SPLIT: 60%

HOURS DELAY, P.M. PEAK: None

V/C RATIO: 0.86* LOS: E* % TRUCKS: 10%

SIGNALIZED INTERSECTIONS: 0

ACCIDENT RATE: 3.10 FAT: 0.00 F&I: 1.39

COMP. STWIDE ACC. RATE: 2.88 FAT: 0.043 F&I: 1.26

PROPOSED ROUTE CONCEPT (2005): Improve existing to 76' 4-lane facility
w/channelization, or replace w/40' 2-lane
expressway bypass

ROUTE CONCEPT LOS (2005): D-35

ANTICIPATED LOS (2005): C-40 with concept improvement
F-25 without improvement

ROUTE SEGMENT DATA

DISTRICT: 5 COUNTY: SBT ROUTE: 156

SEGMENT NUMBER: 3 P.M.: 9.1 to P.M.: 13.1 LENGTH: 4.0

DESCRIPTION: San Benito River to Fallon Rd.
(subsegment P.M. 10.8 to 13.1)

FUNCTIONAL CLASSIFICATION: Ext. of Rural Minor Arterial

FEDERAL AID CLASSIFICATION: Primary

TYPE OF FACILITY: Conventional

TYPE OF TERRAIN: Flat

NUMBER OF TRAFFIC LANES: 4

LANE WIDTH: 10', 12', & 13' SHOULDER WIDTH: 8'

R/W WIDTH: 115' & greater MEDIAN WIDTH: 0', 22', & 32'

ADT (Present,1985): 12,000

ADT (Future,2005): 14,400

PEAK HOUR VOLUME (Present): 1,300

DIRECTIONAL SPLIT: 60%

HOURS DELAY, P.M. PEAK: None

V/C RATIO: 0.36 LOS: B % TRUCKS: 11%

SIGNALIZED INTERSECTIONS: 2

ACCIDENT RATE: 3.15 FAT: 0.089 F&I: 1.31

COMP. STWIDE ACC. RATE: 2.88 FAT: 0.033 F&I: 1.20

PROPOSED ROUTE CONCEPT (2005): Utilize existing facility or replace
with 40' 2-lane expressway bypass

ROUTE CONCEPT LOS (2005): C-45

ANTICIPATED LOS (2005): C-45 with concept improvement
C-45 without improvement

ROUTE SEGMENT DATA

DISTRICT: 5 COUNTY: SBT ROUTE: 156
SEGMENT NUMBER: 4 P.M.: 13.1 to P.M.: R18.4 LENGTH: 5.3
DESCRIPTION: Fallon Rd. to Santa Clara Co. line

FUNCTIONAL CLASSIFICATION: Rural Minor Arterial

FEDERAL AID CLASSIFICATION: Primary

TYPE OF FACILITY: Expressway

TYPE OF TERRAIN: Flat

NUMBER OF TRAFFIC LANES: 2 & 4

LANE WIDTH: 12' SHOULDER WIDTH: 8'
R/W WIDTH: 145' & var. MEDIAN WIDTH: 0' & 22'

ADT (Present,1985): 5,500

ADT (Future,2005): 8,000

PEAK HOUR VOLUME (Present): 660

DIRECTIONAL SPLIT: 60%

HOURS DELAY, P.M. PEAK: None

V/C RATIO: 0.34 LOS: B % TRUCKS: 30%

SIGNALIZED INTERSECTIONS: 0

ACCIDENT RATE: 0.77 FAT: 0.00 F&I: 0.26

COMP. STWIDE ACC. RATE: 0.93 FAT: 0.04 F&I: 0.46

PROPOSED ROUTE CONCEPT (2005): No Significant Change

ROUTE CONCEPT LOS (2005): C-45

ANTICIPATED LOS (2005): C-45

ROUTE SEGMENT DATA

DISTRICT: 4 COUNTY: SCL ROUTE: 156
SEGMENT NUMBER: 5 P.M.: 0.0 to P.M.: 0.7 LENGTH: 0.7
DESCRIPTION: San Benito Co. line to Jct. Rte 152

FUNCTIONAL CLASSIFICATION: Rural Minor Arterial

FEDERAL AID CLASSIFICATION: Primary

TYPE OF FACILITY: Conventional

TYPE OF TERRAIN: Flat

NUMBER OF TRAFFIC LANES: 2

LANE WIDTH: 12'

SHOULDER WIDTH: 8'

R/W WIDTH: 80'

MEDIAN WIDTH: 0'

ADT (Present,1985): 5,500

ADT (Future,2005): 8,000

PEAK HOUR VOLUME (Present): 660

DIRECTIONAL SPLIT: 60%

HOURS DELAY, P.M. PEAK: None

V/C RATIO: 0.0.34

LOS: B

% TRUCKS: 30%

SIGNALIZED INTERSECTIONS: 0

ACCIDENT RATE:

FAT:

F&I:

COMP. STWIDE ACC. RATE:

FAT:

F&I:

PROPOSED ROUTE CONCEPT (2005): No Significant Change

ROUTE CONCEPT LOS (2005): C-45

ANTICIPATED LOS (2005): C-45